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Ningai: a New Genus of Dasyurid for Victoria

BY M. R. FLEMING* AND A. COCKBURN*

The genus *Ningai*

Ningai species are small, slender dasyurids confined to the more arid regions of Australia. They are similar in form and size to species of *Planigale* and *Sminthopsis*, but may be separated from these by external characters (see below). Two species of *Ningai* have been described from central and north-western Western Australia (*N. ridei* and *N. tuncateyi* respectively; Archer 1975). A third undescribed form has been found in southern South Australia (P. Aitken, pers. comm.), south-western Queensland (M. Archer, pers. comm.), western Victoria and central-western New South Wales (D. Black, pers. comm.) (Figure 1).

The name *Ningai* is derived from "an aboriginal name given to tiny mythological beings that are hairy, have short feet, and only come out at night to hunt for food all of which is eaten raw" (Archer 1975, p.243).

Occurrence in Victoria

Eight specimens of *Ningai* have been trapped at three localities in the Big Desert. An immature male (NMV C17606) and an adult female (which subsequently escaped) were trapped in June 1977 by A. Cockburn and M. Fleming at "No. 2" bore on the Nhill to Murrayville road in the Big Desert (35° 52' S, 141° 24' E). J. Wainer obtained an immature female (NMV C17607) at this site in August 1977 and M. Fleming caught a mature male (NMV C17608) there in January 1978. The Mammal Survey Group of the FNCV trapped an immature female (NMV C17609) at a site located about a kilometre north-east of "Broken Bucket" Bore (35° 58' S, 141° 24' E) during December 1977. Two males (NMV C29844) were trapped in October 1978 by P. Mather while he was conducting a reptile survey of the Wyperfeld National Park for the National Park Service. A female with five young was caught in the same area during November 1978.

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Fig. 1.

The distribution of *Ningau*. ○ = *Ningau timealeyi*.

● = *Ningau ridei*, ■ = *Ningau* sp. nov.

Habitat

The Victorian trapping localities occur within the Big Desert (1) land system as defined by the Land Conservation Council of Victoria (1974). The vegetation of the area is a community of heath species with scattered cover of *Eucalyptus incrassata* and *E. foecunda*. The vegetation cover is sparse although *Triodia irritans*, *Casuarina muellerana*, *Adenanthos terminalis*, *Leptospermum laevigatum* var *minus*, *L. myrsinoides* and *Astroloma conostrophoides* provide patchy dense local cover. The heath community is very diverse and plant species occurring commonly throughout the area are listed in Table I.

The four *Ningau* from "No. 2" Bore were trapped on an interdune flat, whereas the "Broken Bucket" Bore specimen was collected on the southern face of a high (10m) dune. All specimens of *Ningau* from South Australia have been trapped on dunes or near the base of dunes in an *E. incrassata*-dominated association with either sparse or open heath understorey (P. Aitken, pers. comm.). The single animal from New South Wales was caught in undulating, sandy country covered with an open mallee scrub (*E. dumosa*) with a sparse ground cover of *T. irritans* (D. Black, pers. comm.).

All Victorian specimens of *Ningau* have been trapped using unbaited pitfalls with drift fences. The intensive use of Elliott traps at the same locality has not caught this species (Cockburn, Fleming & Wainer, 1979), although Elliott traps have been used successfully in South Australia when placed along a drift fence (P. Baverstock, pers. comm.).

Field identification

The distribution of the new form of *Ningau* overlaps those of the other three genera of small dasyurids, *Sminthopsis*, *Planigale* and *Antechinomys*. The most useful external character for separating these genera is the shape of the hindfeet:

Antechinomys is readily separated from the other three genera by the very long, narrow hindfeet and the lack of a hallux (Figure 2a)

Sminthopsis have hindfeet which are narrow and about five times as long as they are narrow (Figure 2b)

Ningau possess a rectangular shaped foot which is about four times as long as it is wide and have enlarged granules behind and adjacent to the hallux (Figure 2c)

Planigale hindfeet are broad at the toes and taper to a narrow heel giving the foot a triangular form (Figure 2d)

Significance

The recent capture of the Little Pygmy Possum, *Cercartetus lepidus* (see Dixon 1978), and *Ningau* sp. nov. in the Big Desert indicates that the small mammal fauna of this region is more diverse than the four species (*C. concinnus*, *S. murina*, *Notomys mitchellii*, *Pseudomys albocinereus* = *apodemoides*) reported by the Land Conservation Council (1974). At present *Ningau* sp. nov. is known from three localities in the most accessible part of the Big Desert but this probably reflects localised trapping effort. The growing use of the Nhill to Murrayville road for recreation purposes will increase the chance of interference of two of these populations. The southern population is provided with some protection by the Crown Lands Reserve around "Broken Bucket" Bore. The best form of protec-

TABLE 1. Species of plant occurring near the "No. 2" Bore trap site

<i>Adenanthos terminalis</i>	<i>Cryptandra leucophracta</i>	<i>L. viscidum</i>
<i>Astroloma conostephioides</i>	<i>C. tomentosa</i>	<i>Lepidobolus drapetocoleus</i>
<i>Baeckea behrii</i>	<i>Dillwynia glaberrima</i>	<i>Leptospermum laevigatum</i> var. <i>mimus</i>
<i>B. crassifolia</i>	<i>Eriostemon pungens</i>	<i>L. myrsinoides</i>
<i>Boronia caerulea</i>	<i>Eucalyptus incrassata</i>	<i>Leucopogon woodsii</i>
<i>Callitris verrucosa</i>	<i>Exocarpos sparteus</i>	<i>Lomandra glauca</i>
<i>Calytrix alpestris</i>	<i>Grevillea pterosperma</i>	<i>L. juncea</i>
<i>C. tetragona</i>	<i>Hakea muellerana</i>	<i>Pultenaea prostrata</i>
<i>Cassitya glabella</i>	<i>Hibbertia sericea</i>	<i>Schoenus breviculmis</i>
<i>C. melantha</i>	<i>H. stricta</i>	<i>Spyridium subochreateum</i>
<i>Casuarina muellerana</i>	<i>Hypolaena fastigiata</i>	<i>Styphelia exarrhena</i>
<i>Correa reflexa</i>	<i>Lepidosperma carphoides</i>	<i>Triodia irritans</i>

tion for *Ningau* in Victoria can only be determined when there is more information on the extent and size of populations of this species.

Acknowledgements

Thanks are extended to P. Aitken, M. Archer and J. Dixon for identification and details; to J. Wainer, D. Black, P. Mather and MSG (FCNV) for their trapping skills and to A. K. Lee for criticism of the manuscript. Preserved specimens were provided by J. Nelson.

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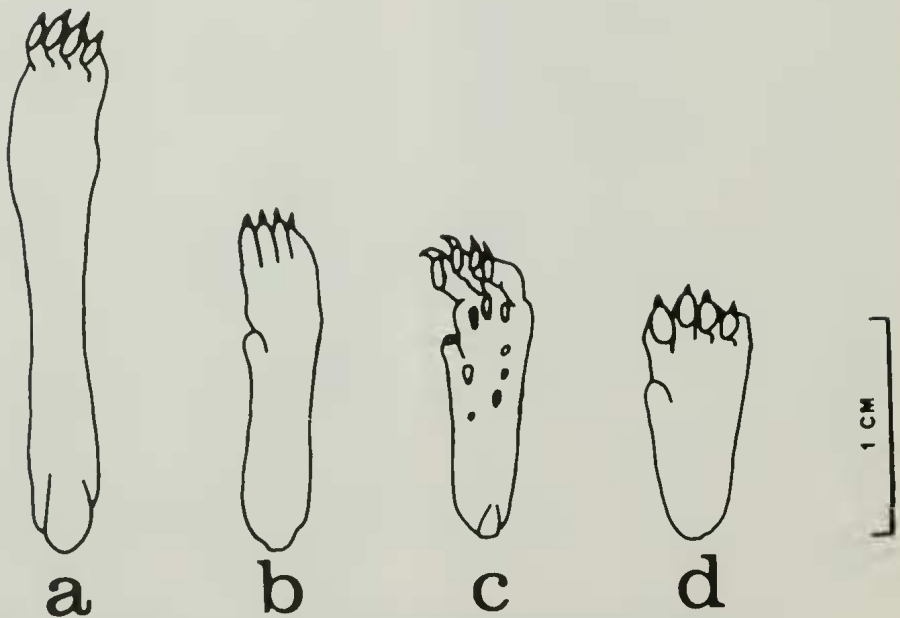


Fig. 2. Outlines of the left hindfoot drawn from photographs of preserved specimens. a = *A. spenceri*, b = *S. murina*, c = *Ningau* sp. nov., d = *P. maculata*.



Fig. 3. *Ningauia* sp. nov., immature female. Photo F. Coffa.

A Tour With A Difference

BY CYRIL H. HENSHAW*

To some people, obscure side roads have much of the charm and attraction of the unknown—a tantalising quality which is rarely permitted to develop its full drawing power. Many times a passenger in a car would dearly like to see what is at the end of the track but the prudent, perhaps timid driver will not venture off the sealed strip.

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During the Conservation Council of Victoria Awareness Tour to Eastern Gippsland in May 1979, the forty-five people who took part were granted the inestimable delight of following many obscure side roads; as indeed were those enterprising souls who braved the first trip to the Western District and the second to the North. By doing so, these people were gaining insight into a broad range of conservation prob-